Bruhat Bangalore Mahanagara Palike

Name of Work : Improvements and construction of compound wall sump tank at Kanaka Nagara Govt school in someshwara ward no-03 of Yelahanka satellite town sub division

								Estimate Cost	**1200000.00**
Sl No	**Description of Item**	**Mesurement**					**Qty**	**Rate**	**Amount**
		Unit	**No**	**L**	**B**	**D**			
1	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer-in-charge.(PWD SR 2021-22 Vol -2 Pg 163 item No. 19.7.3)								
	Existing Compound wall	Cum	1	21	0.2	2.10	8.82		
	Basic rate							**789**	
	Area weightage 10%							**78.9**	
	Total						**8.820**	**867.90**	**7654.88**
2	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. Depth exceeding 1.5m. but not exceeding 3 m (PWD SR 2021-22 Vol -I Pg 5 item No. 1.4.2)								
	SSM								
	Longer Direction	Cum	1	21.0	0.75	0.9	14.175		
	Shorter Direction	Cum	2	5.20	0.75	0.9	7.02		
	Sump	Cum	1	3.3	3.3	2.0	21.2355		
	Footing	Cum	4	1.1	1.1	1.8	8.712		
	Basic rate							**199.00**	
	Area weightage 10%							**19.9**	
	Total						**51.14**	**218.9**	**11195.09**
3	KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift, complete as per specifications. specification. No. KBS 2.10.2 (PWD SR 2018-19/ Pg No-7/ I no. 2.15)								
	Sump	Cum	1	3.30	3.30	0.10	3.267		
	Footing	Cum	4	1.10	1.10	0.10	1.452		
	Basic rate							**2561.00**	
	Area weightage 10%							**256.10**	
	Total						**4.72**	**2817.10**	**13293.89**
4	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates. Specification (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)								
	Below SSM								
	Longer Direction	Cum	1	21	0.75	0.15	2.36		

	Shorter Direction	Cum	2	5.2	0.75	0.15	1.17		
	Sump	Cum	1	3.3	3.3	0.15	1.63		
	Footing	Cum	2.00	1.10	1.10	0.15	0.36		
	Basic rate							**5554.00**	
	Area weightage 10%							**555.4**	
	Total						**5.53**	**6109.4**	**33778.87**
5	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) Mix 1:2:4 (M15) Using 20 mm nominal size graded crushed coarse aggregates (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.1)								
	Above SSM								
	Longer Direction	Cum	1	21	0.75	0.1	1.58		
	Shorter Direction	Cum	2	5.2	0.75	0.1	0.78		
	Basic rate							**6096.00**	
	Area weightage 10%							**609.6**	
	Total						**2.36**	**6705.6**	**15791.69**
6	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand) (Vol 2/ P No-9/ I no- 5.4 of PWD SR 2021-22)								
	SSM								
	Longer Direction	Cum	1	21	0.75	0.65	11.81		
	Shorter Direction	Cum	2	5.2	0.75	0.65	5.85		
	Basic rate							**5352.00**	
	Area weightage 10%							**535.2**	
	Total						**17.66**	**5887.2**	**103982.67**
7	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations and other similar works etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. ((PWD SR 2021-22 Vol- I P.No -7 / I.No -1.9)								
	Filling Available of Excavated Earth								
	Earth Work Excavation	Cum	From Item No.02				51.14		
	PCC	Cum	From Item No.04				-5.53		
	Filling in foundation with granite / trap broken metal	Cum	From Item No.03				-4.72		
	SSM Footing	Cum	From Item No.06				-17.66		
	Footing Concrete Quantity	Cum	From Item No.				-0.73		
	Basic rate							**204.00**	
	Area weightage 10%							**20.40**	
	Total						**22.51**	**224.40**	**5050.35**
8	Loading and Unloading of Stone Boulder/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 5.5 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1A)								
	Excavated Earth	Cum					51.14		

	Filling Available of Excavated Earth						-14.68		
	Basic rate								
	Area weightage 10%							**118.00**	
	Total							**11.80**	
							36.46	**129.80**	**4732.31**
9	Cost of Haulage Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4A)								
		Km		74.65		1.280	95.54752		
	Basic rate								
	8Km 12*8							**12.00**	
	Area weightage 10%							**96.00**	
	Total							**9.60**	
							95.55	**105.60**	**10089.82**
10	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/ trap/ basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (Vol 2/ P No-17/ I no- 2.4.3 of PWD SR 2021-22)								
	For sump								
	Bottom slab	Cum	1	3.30	3.30	0.20	2.18		
	Sump walls	Cum	2	3.30	0.20	1.50	1.98		
		Cum	2	3.00	0.20	1.50	1.80		
	Cover slab	Cum	1	3.00	3.30	0.20	1.98		
	Deduction								
	Opening	Cum	-1	1.00	1.00	0.20	-0.20		
	For Footing								
	Footing	Cum	2.00	1.10	1.10	0.30	0.73		
	Column	Cum	2.00	0.20	0.20	1.05	0.08		
	Plinth Beam for Compound Wall	Cum	1.00	21.00	0.20	0.20	0.84		
		Cum	1.00	5.20	0.20	0.20	0.21		
	Basic rate								
	Add 8% For Shuttering							**5992.00**	
	Sub Total							**479.36**	
	Area weightage 10%							**6471.36**	
	Total							**647.14**	
							9.60	**7118.50**	**68309.09**

11	Providing and laying in position Reinforced cement concrete for all Super structures of building . Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/ basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately) M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (Vol 2/ P No-17/ I no- 2.5.2 of PWD SR 2021-22)								
	Column above Ground	Cum	2.00	0.20	0.20	2.10	0.17		
	Basic rate							**6186.00**	
	Add 10% For Shuttering							**618.60**	
	Sub Total							**6804.60**	
	Area weightage 10%							**680.46**	
	Total						**0.17**	**7485.06**	**1257.49**
12	Providing Thermo-Mechanically Treated bars of grade Fe-500D or more Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position, binding and anchoring to adjacent members whereever necessary complete as per Design including cost of material, labour, usage charges complete as per specifications. (The laps and wastages shall not be measured separately). (PWD SR 2021-22 Vol -II Pg 84 item no 11.32)								
	Sump	Cum					7.74		
		kg	Steel assumed 130 Kg/Cum of				1005.94		
	Footing	Cum					0.73		
		Kg	Steel assumed 100 Kg/Cum of				72.60		
	Column	Cum					0.25		
		Kg	Steel assumed 200 Kg/Cum of				50.40		
	Beam	Cum					1.05		
		Kg	Steel assumed 150 Kg/Cum of				157.20		
	Basic rate								
	Area weightage 10%							**96.00**	
	Total						**1286.14**	**9.60**	**135816.38**
13	Providing and constructing load bearing wall with Solid Concrete blocks of size 400x150x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications.(PWD SR 2021-22 Vol - 2 Pg 17 item no. 6.33)								
	New Compound Wall								
	Longer Direction	Sqm	2	21		2.10	88.20		
	Shorter Direction	Sqm	2	5.2		2.10	21.84		
	Deduction								
	Gate	Sqm	-1	3.4		2.10	-7.14		
	Basic rate								
	Area weightage 10%							**1061.00**	
	Total						**102.90**	**106.1**	**120094.59**
14	Providing 20 mm cement plaster of mix :1:4 (1 cement: 4 fine sand) to brick/stone masonary including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge (Vol 2/ P No-41/ I no- 8.3.1 of PWD SR 2021-22)								

New Compound Wall Plastering									
Longer Direction	Sqm	2.00	21.00		2.10	88.20			
Shorter Direction	Sqm	2.00	5.20		2.10	21.84			
Top Surface of Compound Wall	Sqm	1.00	22.85		0.15	3.43			
Deduction									
Gate	Sqm	-2.00	3.20		2.10	-13.44			
Basic rate							**299.00**		
Area weightage 10%							**29.9**		
Total						**100.03**	**328.9**	**32899.04**	

15 Finishing walls with Acrylic Smooth exterior paint of required shade :New work (Two coat applied @ 1.67 ltr/10 m² over and including priming coat of exterior primer applied @ 2.20 kg/10 m²) with paint of approved quality to give an even shade, after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge.(PWD SR 2021-22 Vol -II Pg 46 item no 8.30)

Exterior Painting								
		Same as Plastering				100.03		
Basic rate							**136.00**	
Area weightage 10%							**13.6**	
Total						**100.03**	**149.6**	**14964.11**

16 Providing and laying water proofing treatment to the Roof with PU based single component elastomeric pure polyurethane based coating on New terrace/Chajjas/Sunken portion of WC:Bathroom, cold applied PU waterproofing membrane that is highly elastic with elongation greater than 400% and tensile strength greater than 2MPa as per ASTM D412. The waterproofing membrane to be applied in 2coats @ 1.6kg per m2 to achieve final DFT (dry film thickness) of 1mm including prime coat of epoxy primer @150 g per m2 and protection with 120gsm Geo-textile over the waterproofing membrane. The finished cost to include surface preparation, making coving at Junction, Bore Packing, treatment of construction joints completely as per specification & with a 10 years warranty on product & work from certified manufacturers as per the direction of the Engineer In charge. (PWD SR 2021-22 Vol -II Pg 133 item no 15.1)

For sump								
Bottom Slab	Sqm	1	3.3	3.3		10.89		
Sump walls	Sqm	2	3.3		2.0	13.2		
	Sqm	2	3		2.0	12		
Basic rate							**745.00**	
Area weightage 10%							**74.50**	
Total						**36.09**	**819.50**	**29575.76**

17 Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to steel windows by welding

Grills for Building(opening portion)								
Longer side	kg	1.00			529.44	529.44		
	9.85*2.15*25=529.44							
shorter side	kg	1.00			341.33	341.70		
	7.38*1.85*25=341.33							
Basic rate							**131.00**	
Area weightage 10%							**13.10**	

Total 870.76 144.10 125476.88

	Total						**871.13**	**144.10**	**125530.19**
18	Providing and placing on terrace(at all floor levels), polyethylene water storage tanks as per IS 12701 marked,with cover and suitable locking arrangement and making necessary holes for inlet,outlet and overflow pipes but without fittings and the base support for tank(For 1000 litre capacity) (PWD SR 2021-22 1st Corrigenda Vol II.Sl No.12.Item No 13.34).								
	Sintex								
		ltr	2000				2000.00		
								8.00	
	Basic rate							**0.80**	
	Area weightage 10%						**2000.00**	**8.80**	**17600.00**
	Total								
19	Supply and delivery of Centrifugal pumpset at site brand new best make and with discharge duty confirming to ISI standards and its latest amendments2 HP, Size 50x40 Head 22M, Discharge 186 LPM (PWD SR 2021-22 Vol V .pg no 164.Item No 46.2).								
	motor	Each	1.00				1		
								17470.00	
	Basic rate							**1747**	
	Area weightage 10%						**1.00**	**19217**	**19217.00**
	Total								
20	Fabricating, providing and erecting in position Hot dip galvanised Gate. Using 72 X 72 X 4.8mm Sq. GI Pipe Frame with Top pipe bending in heavy duty hydraulic press with sand packing and hot bending to form double arch as per drawing profile, 20mm hot dip galvanised sq. rod for verticals at 150mm c/c, as shown in the drawing including providing hot dip galvanised forged ornamental design in between sq. rods and heads at top, middle and bottom. Intermediate supports of 75X12 mm and 50X6 mm arch bend to hot dip galvanised flats. The work is inclusive of throughing GI flat GI sq. rods, placing, welding all the joints including grinding, finishing metal putty, painting two coats enamel painting. The rate is inclusive of all materials like GI sq. pipe, GI sq. rods, GI forged designs etc., heavy duty hinges are made out of 75mm solid sq. block assembled with 20mm dia bearing in three places for each flop. Heavy Duty Locking arrangements at tow places including cost of labour, painting, erecting charges using hoist pulley cranes with all lead and lift, loading, transportation, unloading, scaffolding charges and all other incidental charges for successful completion of the work as per directions of the Engineer-in-charge of the work. (Data Rate)								
	For Gate,	Sqm	1	3.20		2.50	8.00		
	Data Rate							**12475.00**	
	Total						**8.00**	**12475.00**	**99800.00**
21	Providing executive revolving chairs with full high back with head rest etc., complete inclusive of all taxes as per direction of engineer in charge (Data rate) complete as per specifications.Specification .and directoin of site engineer in incharge								
	Chairs								
		No	3				3		
	Basic rate							**7917**	
	Total						**3.00**	**7917**	**23751.00**
22	Supplying steel Almirah with shelves & locker 6.6feet 18/20 gaugeof size 78" x 36"x 19" etc. including of all taxes as per approved by engineer in charge (Data rate) complete as per specifications.Specification .and directoin of site engineer in incharge								
		No	4				4		
	Basic rate							**12022.5**	
	Total						**4.00**	**12022.5**	**48090.00**

23	LED Indoor Supplying of 2' feet - LED PVC Square Batten ..W with high quality diffuser with Life of 25000 burning hours & 70% lumen maintenance with CRI > 80. Power Input: 220-240V @ 50Hz & Power factor >0.9 along with CE approved drivers. 5 years Warranty against any manufacturing defect working under standard electrical condition LED light fighting 4' - 28 watts complete and as per the directions of the Engineer-in-charge of the work(PWD Electrical 2021-22 page no 34 item no 11.3.1)								
	Staff Room	Each	1				1.00		
	Class room	Each	8				8.00		
	Toilets	Each	2				2.00		
	Basic rate							**496.00**	
	Total						**11.00**	**496.00**	**5456.00**
24	Supplying and fixing of slim patty fitting, made out of CRCA Sheet metal body with locking type holder completely wired. Excluding Ballast & Fluorescent Tube(SR for Electrical 2021-22 tem no 11.13.2 Pg 37)								
	Staff Room	Each	2				2		
	Class Room	Each	10				10		
	Toilets	Each	2				2		
	Basic rate							**243.00**	
	Total						**14.00**	**243.00**	**3402.00**
25	Supplying capacitor type ceiling fan complete with down rod blades shackle, canopies etc, for operation on 230 volts, 50 cycles. single phase AC supply conforming to ISS-374-1979 and with double ball bearing system: 48" sweep (1200mm)(SR for Electrical 2021-22 tem no 6.3.1 Pg 22)								
	stff Room	Each	2				2		
	Class room	Each	12				12		
	Basic rate							**2085.00**	
	Total						**14.00**	**2085.00**	**29190.00**
26	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, includingb painting of fittings and brackets, cutting and making good the walls wherever require: 14.7.1 White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps(PWD SR 2021-22 Vol -II Pg 124item no 14.7)								
	Boys toilet								
	Taps	Each	4				4.00		
	Girls Toilet								
	Taps	Each	4				4.00		
	Sink								
	Taps	Each	5				5.00		
								2529.00	
	Basic rate							**252.9**	
	Area weightage 10%						**13.00**	**2781.90**	**36164.70**
	Total								

	TOTAL AMOUNT	1016686.93
	GST Charges (18% of estimated cost)	183003.6
	Miscellenious and rounding	309.4
	Grand Total	1200000.00

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum.
4) The estimate is based on S.R of 2021-2022, PWD Electrical 2021-22 and approved rates.

Assistant Engineer
BBMP

Executive Engineer
BBMP

Executive Engineer
BBMP

Administrative Approval

Accorded For ..12.00 Lakhs
Head of A/C..R-3726 ...
CER NO :...63..... 22/8/22

TA

CE (YNK)

TECHNICALLY SANCTIONED FOR Rs. 12.00 Lakhs
Rupees Twelve Lakhs Only.....
.....
Under R-3726
..... Zonal Public Works .....
Registered as CE ( ) No 9 9
Subject to conditions contained in
enclosed memo EE ( ) No 40 /21
Dt. 23/8/2022 Estimate A/ Sanctioned
BBMP/EE/YNK-01/TS/40/22-23 No 40
Dated 23/8/2022 ..... Rs 12.00 Lakhs

Executive Engineer